Baltimore Red Line
Baltimore, Maryland
New Starts Project Development
(Rating Assigned November 2014)

Summary Description	
Proposed Project:	Light Rail Transit
	14.1 Miles, 19 Stations
Total Capital Cost ($YOE):	$2,997.75 Million (Includes $108.8 million in finance charges)
Section 5309 New Starts Share ($YOE):	$900.00 Million (30.0%)
Annual Operating Cost (opening year 2022):	$44.76 Million
Current Year Ridership Forecast (2014):	35,200 Daily Linked Trips
	12,225,300 Annual Linked Trips
Horizon Year Ridership Forecast (2035):	47,700 Daily Linked Trips
	16,354,200 Annual Linked Trips
Overall Project Rating:	Medium-High
Project Justification Rating:	Medium-High
Local Financial Commitment Rating:	Medium-High

Project Description: The Maryland Transit Administration (MTA) proposes to build a light rail transit (LRT) line between Woodlawn in suburban west Baltimore County through downtown Baltimore, and terminating in the Bayview area of east Baltimore City. The Red Line would operate parallel to, or on or under Interstate Highway 70 and U.S. Route 40 on the west, several arterial streets in downtown Baltimore, and the Norfolk Southern railroad right-of-way on the east end of the route. Most of the alignment would be a dedicated transitway in the median of existing streets, with approximately four miles of tunnel through downtown and one mile of tunnel under Cooks Lane toward the western end of the route. The project includes 14 at-grade stations and five underground stations; five park-and-ride facilities with 2,900 spaces; 26 light rail vehicles (LRV); and a railcar storage, operations and heavy maintenance facility. In the opening year service would be provided between 5:00 a.m. and 1:00 a.m. every 10 minutes during peak periods and every 10 to 15 minutes during off-peak periods on weekdays, and every 15 minutes on weekends.

Project Purpose: Currently there is no fast, direct east-west transit route in the corridor. Arterial streets are congested in this cross-town corridor during rush hours, causing slow bus operations. Traffic speeds on downtown segments of the corridor range from six to 12 miles per hour, and these are expected to worsen by up to 10 percent by 2030. The Red Line would offer fast, convenient and dependable transit service through downtown on an exclusive running way with easy transfer connections to other components of the Baltimore transit network. In addition, the Red Line would serve major employment locations including the U.S. Social Security Administration and the Centers for Medicare and Medicaid Services in Woodlawn; the Johns Hopkins Bayview Medical Center; the Baltimore central business district; the Baltimore Inner Harbor mixed use commercial and entertainment destination, including major league baseball and football stadiums; the Fells Point and Canton residential neighborhoods which are currently experiencing major infill redevelopment; and the mature residential neighborhoods of West Baltimore, Edmondson Village, Rosemont, Harlem Park, Highlandtown, Greektown and others. The Red Line would connect with existing north-south transit services across downtown Baltimore including the Maryland Area Regional Commuter (MARC) rail system, the Baltimore heavy rail Metro system, the existing Central LRT line, and the MTA bus system.

Project Development History, Status and Next Steps: Following publication of the draft alternatives analysis and Draft Environmental Impact Statement (EIS) in September 2008, the State of Maryland selected as the locally preferred alternative (LPA) an LRT line from Woodlawn to Bayview in August 2009. The Baltimore Regional Transportation Board approved the Red Line LPA into the financially constrained long-range regional transportation plan in July 2010. Under SAFETEA-LU, FTA approved the Baltimore Red Line into preliminary engineering in June 2011. Under MAP-21, the project is considered to be in the project development phase. The Final EIS was published in December 2012, and a Record of Decision was issued on February 28, 2013. MTA anticipates entry of the project into the Engineering phase in early 2015, receipt of a Full Funding Grant Agreement in late 2015, and start of revenue service in late 2023.

Significant Changes Since Last Evaluation (January 2014): Project capital costs increased from $2,644.52 million to $2,997.75 million due to further development of the project design and resulting adjustments to the cost estimate, inclusion of finance charges, and schedule modifications. The planned revenue service date changed from late 2022 to late 2023, including a 20-month schedule contingency. MTA indicated it now plans to use a Public-Private Partnership as the delivery method for the project's civil engineering on the eastern and western ends of the route, all track, station finishing, systems (except fare collection), the maintenance facility, elevators, escalators and vehicle procurement. MTA indicated a conventional design-bid-build delivery method will be used to provide all other project elements, including civil engineering in downtown Baltimore and all tunnel construction.

Locally Proposed Financial Plan		
Source of Funds	**Total Funds ($million)**	**Percent of Total**
Federal: Section 5309 New Starts Section 5307 Urbanized Area Formula Funds	$900.00 $55.20	30.0% 1.8%
State: Maryland Transportation Trust Fund	$1,235.29	41.2%
Other: Private Equity and Borrowed Funds (Potentially Including a TIFIA Loan) to be repaid by private concessionaire using funding from availability payments it receives from the Maryland TTF	$807.25	26.9%
Total:	**$2,997.75**	100.0%

NOTE: The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

MD, Baltimore, Red Line
(Rating Assigned November 2014)

Factor	Rating	Comments
Local Financial Commitment Rating	**Medium-High**	
Non-Section 5309 New Starts Share	**+1 level**	The New Starts share of the project is 30.0 percent.
Composite Financial Rating	**Medium**	
Capital and Operating Condition (25% of composite rating)	Medium	• The average age of the Maryland Transit Administration (MTA) bus fleet is 7.1 years, which is in line with the industry average. • The Maryland Department of Transportation (MDOT) is the parent organization of MTA. Its most recent bond ratings, issued in June 2014, are as follows: Moody's Investors Service Aa1, Fitch AA+, and Standard & Poor's AAA. • MDOT's current ratio of assets to liabilities, as reported in its most recent audited financial statement, is 1.12 (FY2013). • There have been no service cutbacks in the past five years. MDOT had positive cash flow in 2013, though shortfalls occurred in 2012 and 2011 that were covered from reserves.
Commitment of Capital and Operating Funds (25% of composite rating)	Medium-High	• Approximately 47.3 percent of the non-Section 5309 funds are committed or budgeted. Sources of funds include Section 5307 Urbanized Area Formula Funds, State Transportation Trust Fund revenues (TTF), and private equity and borrowed funds (potentially including a Transportation Infrastructure Finance and Innovation Act (TIFIA) loan). The borrowed funds or TIFIA loan would be repaid by the concessionaire, based on availability payments made by MDOT from TTF funds. • All of the funds needed to operate and maintain the transit system in the first full year of operation are committed. Sources of funds include FTA Section 5307 formula funds, State TTF revenues, and farebox and other operating revenues (advertising, building rentals, etc.).
Capital and Operating Cost Estimates, Assumptions and Financial Capacity (50% of composite rating)	Medium-Low	• Assumed growth in TTF capital revenues is more optimistic than historical experience. • The capital cost estimate is optimistic for this stage of the project. • Assumed growth in TTF operating revenues, operating costs, and other operating revenues is more optimistic than historical experience. • MTA, along with MDOT, has the financial capacity to cover cost increases or funding shortfalls equal to 25 percent of the estimated project cost or five

		percent of annual MDOT operating expenses in the first full year of the project's operation.

Baltimore Red Line Light Rail Project
Baltimore, Maryland
Project Development
(Rating Assigned January 2014)

LAND USE RATING: Medium-High

The land use rating reflects population and employment densities within ½-mile of proposed station areas, as well as the share of legally binding affordability restricted housing in the corridor compared to the share in the surrounding county(ies).

- Average population density across all station areas is 10,943, which corresponds to a medium-high rating. Total employment served is 196,859, corresponding to a medium-high rating. Parking costs in downtown Baltimore average $14 per day, corresponding to a medium-high rating.
- The proportion of legally binding affordability restricted housing in the project corridor compared to the proportion in the counties through which the project travels is 1.85, which corresponds to a medium rating.
- The character of land use is transit supportive in over half of the project station areas, particularly in the stations serving central Baltimore, where the pattern and scale of development support a diverse mix of uses, high concentrations of employment, and special attractions.
- About half of the station areas were developed when streetcars and walking were the primary modes of travel. As a result, their land use patterns are pedestrian-friendly, with compact, walkable street networks.

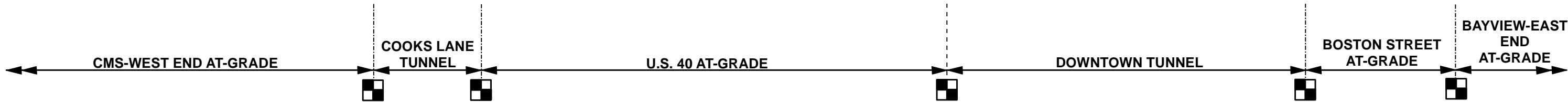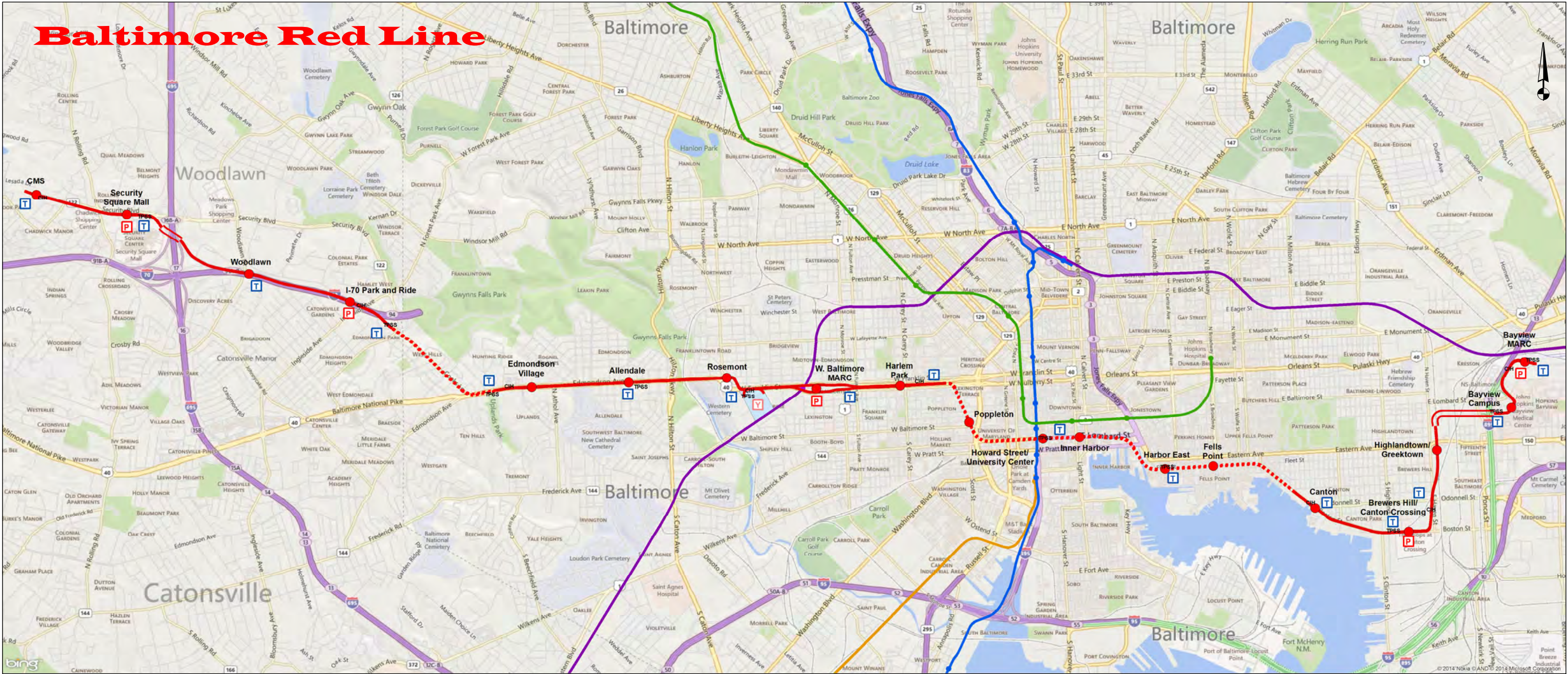| ECONOMIC DEVELOPMENT RATING: Medium-High |
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Transit-Supportive Plans and Policies: Medium-High

- *Growth Management:* The State of Maryland and Baltimore County have policies and programs that actively promote the concentration of development in existing cities and towns. Maryland's 1997 Smart Growth Management Act created an incentive-based program designating Priority Funding Areas (PFA) for growth-related state infrastructure funding. Virtually the entire Red Line is within a PFA. Several State programs provide additional growth management funding incentives.
- *Transit-Supportive Corridor Policies:* The State, Baltimore County, and Baltimore City have designated areas within walking distance of transit as priority areas for development. Station Area Advisory Committees developed vision plans for station areas and later focused on station design, emphasizing pedestrian activity and aesthetics.
- *Supportive Zoning Regulations Near Transit Stations:* Existing zoning ordinances in Baltimore City generally allow densities in the medium-high to high range. The City recently has made substantive progress in developing a new zoning code to encourage higher-density, mixed use infill development with transit-oriented character. While Baltimore County has rezoned the Security Square station area to allow high densities, zoning at other outlying stations currently restricts densities to lower densities.
- *Tools to Implement Land Use Policies:* The State of Maryland and City of Baltimore provide significant incentives for compact development patterns with transit supportive characteristics. Local governments have the authority to use tax increment financing and special taxing districts to pay for transit oriented development (TOD) infrastructure, including operating and maintenance costs. Baltimore City's Capital Improvement Program can provide capital funding for TOD projects.

Performance and Impacts of Policies: Medium-High

- *Performance of Land Use Policies:* The Maryland Mass Transit Administration (MTA) has a strong record of implementing joint development at transit stations. The submission includes descriptions of 10 TOD projects that have been implemented or that are under construction and numerous additional projects that are either planned, proposed, or under construction in Red Line Station areas.
- *Potential Impact of Transit Investment on Regional Land Use:* An assessment of land vacancy and the condition of existing development conducted by the MTA has identified over 2,000 acres of property in station areas with strong potential for future redevelopment in transit-supportive uses. Strong population and employment growth are forecast for project station areas, reflecting the vitality of economic sectors based in the region.

Tools to Maintain or Increase Share of Affordable Housing: Medium-High
• Baltimore City is involved in a wide range of initiatives to maintain and expand its inventory of affordable housing, including housing for households with very low incomes. This includes: an inclusionary zoning ordinance that requires developers to provide affordable housing under a variety of circumstances; funding and financing for construction and down payments; and multiple redevelopment efforts that are replacing obsolete, dilapidated and vacant housing. The State of Maryland provides financial assistance of various types to maintain and increase the supply of affordable housing and to provide resources for low- and moderate-income households to afford rents and mortgages.

Baltimore Red Line

Baltimore

Woodlawn

Baltimore

CMS
Security Square Mall
Woodlawn
I-70 Park and Ride
Edmondson Village
Allendale
Rosemont
W. Baltimore MARC
Harlem Park
Poppleton
Howard Street/ University Center
Inner Harbor
Harbor East
Fells Point
Canton
Brewers Hill/ Canton-Crossing
Bayview MARC
Bayview Campus

Baltimore

Catonsville

| CMS-WEST END AT-GRADE | COOKS LANE TUNNEL | U.S. 40 AT-GRADE | DOWNTOWN TUNNEL | BOSTON STREET AT-GRADE | BAYVIEW-EAST END AT-GRADE |

Plan Legend

Red Line
- ○ Station
- Surface
- Aerial
- Tunnel
- ■ CIH
- Y LRT Maintenance Facility
- P Stations with Parking
- T Traction Power Substation

Existing Rail
- Metro
- Central Light Rail
- MARC Camden Line
- MARC Penn Line

PLAN - CORRIDOR MAP
NTS

Baltimore Red Line
Corridor Alignment
08-22-2014